

# **Factors associated with poor nutritional status among community dwelling Lebanese elderly subjects living in rural areas: results of the AMEL study**

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**Objectives:** This study aimed to assess the nutritional status, measured by MNA, and its association with socio-demographic indicators and health related characteristics of a representative sample of community dwelling elderly subjects.

**Design:** Cross-sectional study

**Setting:** Community dwelling elderly individuals living in rural communities in Lebanon

**Participants:** 1200 elderly individuals aged 65 years or more

**Measurements:** Socio-demographic indicators and health related characteristics were recorded during a standardized interview. Nutritional status was assessed through Mini Nutritional Assessment (MNA). The 5-item GDS score was used to assess mood, whereas Mini Mental Status (MMS) was applied to evaluate cognitive status.

**Results:** The prevalence of malnutrition and risk of malnutrition was 8.0% respective 29.1% of the study sample. Malnutrition was significantly more frequent in elderly subjects aged more than 85 years, in females, widowed and illiterate people. Moreover, participants who reported lower financial status were more often malnourished or at risk of malnutrition. Regarding health status, poor nutritional status was more common among those reporting more than three chronic diseases, taking more than three drugs daily, suffering from chronic pain and those who had worse oral health status. Also, depressive disorders and cognitive dysfunction were significantly related to malnutrition. After multivariate analysis following variables remained independently associated to malnutrition: living in the governorate of Nabatieh (ORa 2.30, 95% CI 1.35 -3.93), reporting lower income (ORa 0.77, 95% CI 0.61-0.97), higher number of comorbidities (ORa 1.22, 95% CI 1.12-1.32), higher drug intake (ORa 1.72, 95% CI 1.24-2.39), and depressive disorders (ORa 1.663, 95% CI 1.467-1.885). On the other hand, better cognitive functioning was strongly associated with decreased nutritional risk (ORa 0.274, 95%CI 0.172-0.435).

**Conclusion:** Our results highlighted the close relationship between numerous health status and malnutrition. The identification of potential predictive factors may allow better prevention and management of malnutrition in elderly people.

**Key words:** Malnutrition, Elderly, MNA